

This listing of claims will replace the originally filed claims in the application.

Listing of Claims:

Claims 1 - 11 (canceled)

Claim 12 (new): A method of managing or controlling an electric arc welding shop utilizing several welding torches (10) which comprise the steps of:

- (i) feeding each torch at least one consumable wire (11);
 - (ii) moving each consumable wire (11) with a wire speed (V);
 - (iii) subjecting each wire to an electrical current of intensity (I); and
- (a) wherein at least one wire speed value (V) is determined by a speed sensor, wherein said V is the average speed at which each wire (11) feeds each torch (10) over a given period (T);
- (b) wherein at least one current intensity value (I) is determined by a current sensor, wherein said I is the average current which each wire (11) is subjected to over a given period (T); and
- (c) wherein at least one productivity parameter selected from the group consisting of: duty factor (DF) and deposition rate (DR) is determined by said values V and I.

Claim 13 (new): The method according to Claim 12, wherein the shop comprises from about 2 to about 20 welding torches.

Claim 14 (new): The method according to Claim 12, wherein each said torch is fed at least 1 wire.

Claim 15 (new): The method according to Claim 14, wherein each said torch is fed 1 or 2 wires.

Claim 16 (new): The method according to Claim 12, wherein said method further comprises a step of acquiring said speed value (V) and/or at least one said current intensity value (I).

Claim 17 (new): The method according to Claim 12, wherein said method further comprises storing at least one selected from the group consisting of: V, I, DF and DR.

Claim 18 (new): The method according to Claim 17, wherein said method further comprises a step of processing the wire speed values (V) or the intensity values (I) either before and/or after storage.

Claim 19 (new): The method according to Claim 18, wherein said processing occurs before storage.

Claim 20 (new): The method according to Claim 18, wherein processing each said wire speed value (V) or each said intensity value (I) consists of calculating at least one productivity parameter selected from the duty factor (DF) and the deposition rate (DR) for each torch (10) and/or optionally the average value of these parameters for all the torches.

Claim 21 (new): The method according to Claim 12, wherein said method further comprises transmitting at least one selected from the group consisting of: V, I, DF and DR to the shop monitoring means.

Claim 22 (new): The method according to Claim 21, wherein said transmission occurs via a remote transmission step.

Claim 23 (new): A system for managing or controlling an electric arc welding shop in which several welding torches (10) are utilized, each fed at least one consumable wire (11), each consumable wire (11) moving with a wire speed (V) and subjected to an electrical current of intensity (I), which comprises:

(a) first determination means for each torch (10), comprising a speed sensor for determining at least one wire speed value (V) representative of the average speed at which each wire (11) feeds each torch (10) over a given period (T) or comprising at least one current sensor for determining at least one current intensity value (I)

representative of the average current to which each wire (11) is subjected over the given period (T); and

(b) second determination means that cooperates with the first determination means in order to determine, from at least each speed value (V) of the wire (11) or each intensity value (I) of the electrical current determined by the first determination means, at least one productivity parameter selected from the duty factor (DF) and the deposition rate (DR) for each torch (10) of the shop and/or optionally the average value of these parameters for all the torches of the shop.

Claim 24 (new): The system according to Claim 23, wherein said system further comprises means for storing at least one selected from the group consisting of: the duty factor (DF), the deposition rate (DR), the wire speed value (V) and the current intensity (I).

Claim 25 (new): The system according to Claim 23, wherein said system further comprises means for transmitting at least one selected from the group consisting of: the duty factor (DF), the deposition rate (DR), the wire speed value (V) and current intensity (I).

Claim 26 (new): The system according to Claim 23, wherein said system further comprises:

(a) means for acquiring and/or storing at least one wire speed value (V) determined by the speed sensor and/or at least one current intensity value (I) determined by the current sensor; and/or

(b) means for processing the wire speed values (V) and/or the intensity values (I) before and/or after storage.